PUBLIC TESTIMONY OF AL GEDICKS BEFORE THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY (MDEQ) ON AQUILA RESOURCES'S BACK FORTY WETLAND PERMIT APPLICATION ON TUESDAY, JANUARY 23, 2018 AT THE STEPHENSON HIGH SCHOOL IN STEPHENSON, MICHIGAN.

My name is Al Gedicks and I am the executive secretary of the Wisconsin Resources Protection Council. My main concern with Aquila's wetland permit is that they have dismissed the alternative of off-site milling that would significantly reduce the impacts to wetlands. Aquila has dismissed this alternative because it would reduce their profit margin and make the project uneconomical. However, their conclusion that it is uneconomic is unwarranted because they have not considered other costs. More specifically, they have not taken into account the quality of effluent allowed as discharge and the increased potential for, and increased risk to aquatic resources from mercury methylation, the most dangerous form of mercury.

Aquila's wetland permit application is 2650 pages long. Not once in the 2650 pages is there any mention of the risk due to mercury methylation. This is not only a significant scientific omission but it is an indication of the environmental racism in an application that fails to take into account the fact that people who rely on fish for subsistence are also particularly vulnerable to mercury contamination health hazards.

According to the permit application, total mercury (HgT) is already elevated in places along the Menominee (and Shakey) Rivers. However, it is not the total amount of mercury that is important. It is the methylmercury (MeHg) that bioconcentrates through the food chain and increases impacts on both aquatic resources and human health. Sulfate, which will be discharged by the wastewater treatment plant with no permit effluent limits, can stimulate the conversion of mercury to methylmercury. Bacteria that are common in

wetlands and lakes transforms the heavy metal deposited by air into something that can be transported up the food chain – from micro-organisms to fish to pregnant women.

The sulfate discharges into the water, the sulfur compounds into the air, the mercury into both air and water, plus flooding and destruction of wetlands, creates the perfect storm to produce huge increases in the amount of methylmercury in fish as a result of bioaccumulation from the very smallest organisms in the water up to the largest fish that can result in an increasing concentration of a million times. Methylmercury can be absorbed much more easily than mercury into the bodies of insects and other small organisms. When these small organisms are eaten by bigger living organisms such as fish, the heavy metals enter the fish. Those metals can remain in the fish for extended periods. As the fish eats more of the smaller organisms, the amount of heavy metals increases.

And we, human beings, as well as wildlife – we're at the top of the food chain. And the fetus is at least 5 times more sensitive to the effects of mercury as an adult. Mercury is a potent neurotoxin that can affect the brain and nervous system development in fetuses, infants and children. In Minnesota's Lake Superior region, already one out of 10 newborns are born with levels of mercury in their blood that exceed safe levels - - levels of mercury that are high enough to show in scientific literature a correlation with decreased I.Q.

So what Aquila is proposing to put into the headwaters of the Menominee River are increases in sulfate and toxic metals that harm fish and human health but also risk increasing toxic mercury for downstream communities, including Green Bay and eventually into Lake Michigan.

Without an analysis of the potential for mine activities to create a perfect storm that increases methylmercury, the economic viability of the mine and the risk to both aquatic resources and human health is incomplete.

Under the provisions of Part 303 the Michigan Department of Environmental Quality cannot issue a permit unless the applicant has shown that a feasible and prudent alternative does not exist. Since MDEQ has the responsibility for protecting wetlands, the evaluation of off-site milling as an alternative should be evaluated prior to authorizing the destruction of wetlands where it may not be needed.